UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,422	03/13/2000	RUDOLF RITTER	PM257741	9767

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER
CHARLES, DEBRA F

ART UNIT	PAPER NUMBER
3624	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	09/508,422	RITTER ET AL.
	Examiner	Art Unit
	Debra F. Charles	3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _02 November 2004_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _13-18, and 20-60_ is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _13-18 and 20-60_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____.

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Response to Amendment

1. Claims 1-12, 19 and 41 have been cancelled. Claims 13,

    14,15,16,17,18,20,21,22,23,24,25,27,28,29,30,31,32,33,34,35,36,37,38,39,40,42

    ,43,45,46,47,48,49, and 50. Claims 51-60 have been added.

Response to Arguments

2. Applicant's arguments with respect to claims 13-18, 20-40, and 42-60 have been

considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3.The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
>
> set forth in section 102 of this title, if the differences between the subject matter sought to be
>
> patented and the prior art are such that the subject matter as a whole would have been obvious
>
> at the time the invention was made to a person having ordinary skill in the art to which said
>
> subject matter pertains. Patentability shall not be negatived by the manner in which the invention
>
> was made.

4. Claims 13,18, 23,24,25,26,27,28,29,30, 31,32,33,34, 35,36,37, 38,39,40,42, 43,

    44,45,46, 47, 48, 50, 51, 59 and 60 are rejected under 35 U.S.C. 103(a) as being

    unpatentable over Fenner(5561706A), Castro (5359642A) and

    Slusky(5440620A).

Re claims 13 and 18: Fenner disclose a customer terminal device, a chipcard and a first
profile memory area(Abstract, col. 1, lines 45-67) comprising: a first profile
memory(Abstract, col. 1, lines 45-67).

Fenner disclose(s) the claimed invention except a pre-paid amount memory area
configured to store pre-payment data corresponding to a pre-paid amount of money.
However, in Abstract, Fig. 3, item 45, 46, 52 and 53, col. 2, lines 45-col. 4, line 25
thereof, Castro disclose(s) prepaid subscriber phone service with various memories and
deducting funds from the prepaid area. It would be obvious to one of ordinary skill in the
art to modify the invention of Fenner based on the teachings of Castro. The motivation to
combine these references is to make the money collection system fast and efficient and
effective when used with a IC card. IC cards already have memories in them and adding
the debit function enables real-time accounting of remaining funds.

Fenner and Castro disclose(s) the claimed invention except determine a dynamic client
profile based on at least one random variable of a previous connection, store the
dynamic client profile in the first profile memory area, determine a present cost
associated with a new connection based on the dynamic client profile, and modify the
pre-payment data based on the present cost prior to termination of the new connection.
However, in Abstract, Col. 1, lines 1-67, col. 4, line 60-col. 9, line 20 thereof Slusky
disclose a client profile that changes dynamically with new parameters introduced to it.
It would be obvious to one of ordinary skill in the art to modify the invention of Fenner and

Castro based on the teachings of Slusky. The motivation to combine these references is

to make the output of the billing system accurately predict the amounts and costs based

on interactively input data. Further, interactive, real-time predictive systems are old and

well-known in the economics industry. It would be obvious to use such a system to

accurately predict estimated billed cost of the connection based on input parameters.

Re Claims 23, 31, and 43: Fenner disclose a billing system for determining

telecommunications network usage fees(col. 4, lines 40-50), comprising:

a first profile memory area configured to store a dynamic client profile for at least one

customer of the telecommunications network(col. 4, lines 1-45).

Fenner disclose(s) the claimed invention except a pre-paid amount memory area

configured to store a pre-paid money amount associated with the customer; and means

for debiting said usage fee from the pre-paid money amount. However, in Abstract, Fig.

3, item 45, 46, 52 and 53, col. 2, lines 45-col. 4, line 25 thereof, Castro disclose(s)

prepaid subscriber phone service with various memories and deducting funds from the

prepaid area. It would be obvious to one of ordinary skill in the art to modify the invention

of Fenner based on the teachings of Castro. The motivation to combine these references

is to make the money collection system fast and efficient and effective when used with a

IC card. IC cards already have memories in them and adding the debit function enables

real-time accounting of remaining funds.

Fenner and Castro disclose(s) the claimed invention except said dynamic client profile

indicating an average cost of previous connections of the customer and being derived

from at least one random variable of the previous connections;

means for determining the at least one random variable with every new connection;

means for changing the dynamic client profile depending on the determined at least one

random variable;

means for determining a usage fee based on the stored dynamic client profile.

However, in Abstract, Col. 1, lines 1-67, col. 4, line 60-col. 9, line 20 thereof Slusky

disclose a client profile that changes dynamically with new parameters introduced to it.

It would be obvious to one of ordinary skill in the art to modify the invention of Fenner and

Castro based on the teachings of Slusky. The motivation to combine these references is

to make the output of the billing system accurately predict the amounts and costs based

on interactively input data. Further, interactive, real-time predictive systems are old and

well-known in the economics industry. It would be obvious to use such a system to

accurately predict estimated billed cost of the connection based on input parameters.

Re Claims 24 and 32: Fenner disclose comprising a second profile memory area

configured to store an overall client profile, wherein the usage fee is determined from

the overall client profile, and wherein the overall client profile is derived from at least

one random variable of previous connections of at least one group of customers, the

stored overall client profile being adapted dynamically(Abstract, i.e maintain a plurality

of service profiles, col. 4, lines 40-65).

Re Claim 25: Fenner and Castro disclose the claimed invention except the at least one

random variable includes at least one of customer duration, time of day, day of the

week, and geographic characteristics of the previous connection. However, in the

Abstract, col. 1, lines 1-67, thereof, Slusky discloses dynamic profile with various

parameters inserted into the profile. It would be obvious to one of ordinary skill in the art

to modify the invention of Fenner, and Castro based on the teachings of Slusky. The

motivation to combine these references is to make the output of the billing system

accurately predict the amounts and costs based on interactively input data. Further,

interactive, real-time predictive systems are old and well-known in the economics

industry. It would be obvious to use such a system to accurately predict estimated billed

cost of the connection based on input parameters.

Re Claim 26: Fenner disclose the usage fee is determined based on a statistical system

load obtained from the overall client profile(col. 4, lines 40-60).

Re Claims 27 and 33: Fenner and Castro disclose(s) the claimed invention except

dynamic client profile indicating an average cost of previous connections of the

customer and being derived from at least one statistical characteristic of the previous

connections of the customer means for determining at least one statistical characteristic

with every new connection, means for changing the dynamic client profile depending on

the determined at least one statistical characteristic; and means for determining a usage

fee based on the stored dynamic client profile. However, in Abstract, Col. 1, lines 1-67,

col. 4, line 60-col. 9, line 20 thereof Slusky disclose a client profile that changes

dynamically with new parameters introduced to it. It would be obvious to one of ordinary

skill in the art to modify the invention of Fenner and Castro based on the teachings of

Slusky. The motivation to combine these references is to make the output of the billing

system accurately predict the amounts and costs based on interactively input data.

Further, interactive, real-time predictive systems are old and well-known in the economics

industry. It would be obvious to use such a system to accurately predict estimated billed

cost of the connection based on input parameters.

Claim 28: Fenner disclose comprising means for storing a statistical dynamic overall

client profile, wherein the usage fee is determined from the dynamic overall client

profile, and wherein the overall client profile is derived from at least one random variable

of previous connections of at least one group of customers, the stored overall client

profile being adapted dynamically(Abstract, i.e maintain a plurality of service profiles,

col. 4, lines 40-60).

Re Claim 29: Fenner and Castro disclose the invention except wherein the at least one

statistical characteristic includes at least one of connection duration, time of day, day of

the week, and geographic characteristics of previous connections. However, in the

Abstract, col. 1, lines 1-67, thereof, Slusky discloses dynamic profile with various

parameters inserted into the profile. It would be obvious to one of ordinary skill in the art

to modify the invention of Fenner and Castro based on the teachings of Slusky. The

motivation to combine these references is to make the output of the billing system

accurately predict the amounts and costs based on interactively input data. Further,

interactive, real-time predictive systems are old and well-known in the economics

industry. It would be obvious to use such a system to accurately predict estimated billed

cost of the connection based on input parameters.

Re Claim 30: Fenner disclose the usage fee is dependent on a statistical system load

obtained from the overall client profile(col. 4, lines 40-60).

Re Claim 34: Fenner disclose deriving a dynamic overall client profile, comprising the

statistical features of previous connections of at least one group of customers, from at

least one random variable of previous connections of said at least one group of

customers; and storing said dynamic overall client profile in a memory area of a

customer telecommunications device(Abstract, i.e. maintain a plurality of service

profiles, col. 4, lines 40-60).

Re claims 35,36,37, 38, 44,45,46 and 47: Fenner and Castro disclose updating the

client profile so that the dynamic client profile includes a value proportional to average

duration price, time per connection of the customer; a number of connections of the

customer in pre-defined classes of duration of customer connection time; and updating

the client profile to include multi-dimensional functions of random variables of previous

connections of the customer of the digital telecommunications network. However, in the

Abstract, col. 1, lines 1-67, col. 4, line 60-col. 9, line 20, thereof, Slusky discloses

updating a dynamic profile with various parameters inserted into the profile. It would be

obvious to one of ordinary skill in the art to modify the invention of Fenner and Castro

based on the teachings of Slusky. The motivation to combine these references is to make

the output of the billing system accurately predict the amounts and costs based on

interactively input data. Further, interactive, real-time predictive systems are old and well-

known in the economics industry. It would be obvious to use such a system to accurately

predict estimated billed cost of the connection based on input parameters.

Claim 39 and 48: Fenner and Castro disclose the invention except creation of the client

traffic distribution curve includes using random variables including at least one of

connection duration time, time of day, day of the week, and geographic characteristics

of previous connections. However, in the Abstract, col. 1, lines 1-67, thereof, Slusky

discloses dynamic profile with various parameters inserted into the profile. It would be

obvious to one of ordinary skill in the art to modify the invention of Fenner and Castro

based on the teachings of Slusky. The motivation to combine these references is to make

the output of the billing system accurately predict the amounts and costs based on

interactively input data. Further, interactive, real-time predictive systems are old and well-

known in the economics industry. It would be obvious to use such a system to accurately

predict estimated billed cost of the connection based on input parameters.

Re Claim 40: Fenner disclose basing the usage fee on a statistical system load

obtained from the overall client profile(col. 4, lines 40-60).

Re Claims 42 and 50: Fenner disclose informing the customer of said usage fee before

establishment of the new connection; allowing the customer to interrupt the

establishment of the new connection based on the informing(col. 4, lines 45-60, ie when

the customer has completed the service selections, then the system tells the customer

what the cost is, and that this point, the customer is not even connected so it follows

that the customer is able to terminate the connection after being told of the cost).

Re Claim 51: Fenner disclose a method for determining usage fees in a

telecommunications network(Abstract, col. 4, lines 50-60), comprising:

requesting a new connection by the customer(col. 3, line 65-col. 4, line 60),

determining a usage fee for the new connection based on the customer client

profile(col. 3, line 65-col. 4, line 60);

establishing the new connection(col. 4, line 60-col. 5, line 60).

Fenner disclose the invention except debiting the usage fee from a pre-paid amount

before the new connection is terminated. However, in Abstract, Fig. 3, item 45, 46, 52

and 53, col. 2, lines 45-col. 4, line 25 thereof, Castro disclose(s) prepaid subscriber

phone service with various memories and deducting funds from the prepaid area. It

would be obvious to one of ordinary skill in the art to modify the invention of Fenner based

on the teachings of Castro. The motivation to combine these references is to make the

money collection system fast and efficient and effective when used with a IC card. IC

cards already have memories in them and adding the debit function enables real-time

accounting of remaining funds.

Fenner and Castro disclose the invention except generating an overall client profile

based on random variables associated with previous connections of a plurality of

customers of the telecommunications network; generating a customer client profile for a

customer of the telecommunications network based on the overall client profile;

determining random variables associated with the new connection; and

modifying the customer client profile based on the random variables associated with the

new connection. However, in Abstract, Col. 1, lines 1-67, col. 4, line 60-col. 9, line 20

thereof Slusky disclose a client profile that changes dynamically with new parameters

introduced to it. It would be obvious to one of ordinary skill in the art to modify the

invention of Fenner and Castro based on the teachings of Slusky. The motivation to

combine these references is to make the output of the billing system accurately predict

the amounts and costs based on interactively input data. Further, interactive, real-time

predictive systems are old and well-known in the economics industry. It would be obvious

to use such a system to accurately predict estimated billed cost of the connection based

on input parameters.

Re Claim 59: Fenner and Castro disclose the invention except

requesting a second new connection; and determining a second usage fee

for the second new connection based on the modified customer client profile. However,

in Abstract, Col. 1, lines 1-67, col. 4, line 60-col. 9, line 20 thereof Slusky disclose a

client profile that changes dynamically with new parameters introduced to it. It would be

obvious to one of ordinary skill in the art to modify the invention of Fenner and Castro

based on the teachings of Slusky. The motivation to combine these references is to make

the output of the billing system accurately predict the amounts and costs based on

interactively input data. Further, interactive, real-time predictive systems are old and well-

known in the economics industry. It would be obvious to use such a system to accurately

predict estimated billed cost of the connection based on input parameters.

Re Claim 60: Fenner and Slusky disclose the invention except comparing the usage fee

with an available pre-paid amount, wherein the establishing occurs when the available

pre-paid amount exceeds the usage fee. However, in the Abstract, , Fig. 3, item 45, 46,

52 and 53, col. 2, lines 45-col. 4, line 25 thereof, Castro disclose(s) prepaid subscriber

phone service with various memories and deducting funds from the prepaid area. It

would be obvious to one of ordinary skill in the art to modify the invention of Fenner based

on the teachings of Castro. The motivation to combine these references is to make the

money collection system fast and efficient and effective when used with a IC card. IC

cards already have memories in them and adding the debit function enables real-time

accounting of remaining funds.

5. Claims 52,53,55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Fenner(5561706A), Castro (5359642A) and Slusky(5440620A), as applied to claim

51 above, and further in view of Peterson et al.(5594940).

Re Claims 52, 53, 55, 56: Fenner, Castro and Slusky disclose the invention except the

generating of the overall client profile further includes generating an overall client traffic

distribution; generating of the overall client profile further includes determining, based

on the overall client traffic distribution, at least one of a mean value, a variance, a class,

a moving average, and a distribution in a pre-defined class; wherein the determining of

the usage fee includes determining revenue figures associated with the previous

connections of the plurality of customers; and wherein the determining of the revenue

figures includes determining a mean time-per-connection and a mean revenue-per-

connection. However, in the Abstract, claims 1-8, thereof, Peterson et al. disclose

telecommunications traffic modeling system using mean and variance to determine

telecommunications allocations. It would be obvious to one of ordinary skill in the art to

modify the invention of Fenner, Castro and Slusky based on the teachings of Peterson et

al. The motivation to combine these references is to effectively and efficiently determine

the best allocation strategy that enhances revenue.

Claims 54 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Fenner(5561706A), Castro (5359642A) and Slusky(5440620A), as applied to claim 51

above, and further in view of Haskin (5426645A).

Re Claims 54 and 57: Fenner, Castro and Slusky disclose the invention except the

determining of the usage fee is performed by a customer telecommunications device;

and storing the overall client profile and the customer client profile in a customer

telecommunications device. However, in the Abstract, col. 3, lines 5-60, col. 4, lines 20-

55, col. 5, lines 30-45, thereof Haskin discloses a PC which is a customer

telecommunications device that stores data and dynamically changing data inputs that

determine outputs such as the connection fee. It would be obvious to one of ordinary skill

in the art to modify the invention of Fenner, Castro and Slusky based on the teachings of

Haskin. The motivation to combine these references is to effectively and efficiently store

data on the customer user device.

Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Fenner(5561706A), Castro (5359642A) and Slusky(5440620A), as applied to claim 51

above, and further in view of Jonsson (6115613A).

Re claim 58 Fenner, Castro and Slusky disclose the invention except

storing the overall client profile and the customer client profile on an SIM card. However,

in col. 1, lines 1- 67, Jonsson disclose a SIM card which has a memory for data storage

that identifies a specific user of the telecommunications device. . It would be obvious to

one of ordinary skill in the art to modify the invention of Fenner, Castro and Slusky based

on the teachings of Jonsson. The motivation to combine these references is to effectively

and efficiently store data on the customer user device.

5.Claims 14, 15, 16, 17, 20, 21 and 22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Fenner(5561706A), Castro (5359642A) and Slusky(5440620A), as

applied to claims 13 and 18 above, and further in view of Kohashi(JP 01108613).

Re claim 14: Fenner, Castro and Slusky disclose the claimed invention except composing a disp

configured to display the amount for new connections. However, in page 9, para 2, thereof Koha

disclose(s) a display of liquid crystal or plasma display. It would be obvious to one of ordinary sk

the art to modify the invention of Fenner, Castro and Slusky based on the teachings of Kohaski. T

motivation to combine these references is to effectuate an efficiently allocated costing based on a

historical consumer usage.

Re claims 15 and 20: Fenner disclose a customer terminal device comprising a second

profile memory area configured to store an overall client profile, wherein the present

cost for the new connection is determined based on the overall client profile and

wherein the overall client profile is derived from one or multiple random variables of

previous connections of at least one group of customers of the digital

telecommunications network, the stored overall client profile being adapted

dynamically(Abstract, i.e maintain a plurality of service profiles).

Claims 16 and 21: Fenner, Castro and Kohaski disclose the claimed invention except

the at least one random variable includes at least one of customer duration, time of day,

day of the week, and geographic characteristics of the previous connection. However, in

the Abstract, col. 1, lines 1-67, thereof, Slusky discloses dynamic profile with various

parameters inserted into the profile. It would be obvious to one of ordinary skill in the art

to modify the invention of Fenner, Castro and Kohaski based on the teachings of Slusky.

The motivation to combine these references is to make the output of the billing system

accurately predict the amounts and costs based on interactively input data. Further,

interactive, real-time predictive systems are old and well-known in the economics

industry. It would be obvious to use such a system to accurately predict estimated billed

cost of the connection based on input parameters.

Re Claims 17 and 22: Fenner disclose wherein the present cost for the new connection

is dependent on a statistical system load obtained from the overall client profile(col. 4,

lines 40-60).

1.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Debra F. Charles whose telephone number is (703) 305-

4718. The examiner can normally be reached on 9-5 Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Vincent A. Millin can be reached on (703) 308-1065. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Debra F. Charles

Examiner

Art Unit 3624

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VINCENT MILLIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600